CLAIMS

1. A crosslinked resin, characterized in that it comprises a material obtained from the mixing of at least one or more simple metal alkoxides, complex metal alkoxides or silicon alkoxides, of acetylacetone, of hexamethylenetetramine and of an acid, and then heating said mixture and exposing it to radiation.

2. The crosslinked resin as claimed in claim 1, characterized in that the metal alkoxide is of titanium alkoxide type.

3. The crosslinked resin as claimed in claim 2, characterized in that the metal alkoxide is of zirconium alkoxide type.

4. The crosslinked resin as claimed in claim 1, characterized in that it comprises a complex lead/zirconium and titanium alkoxide.

5. The crosslinked resin as claimed in claim 4, characterized in that the complex lead, zirconium and titanium alkoxide is obtained from lead carboxylate, zirconium alkoxide and titanium alkoxide.

6. The crosslinked resin as claimed in one of claims 1 to 5, characterized in that the acid is acetic acid.

7. The crosslinked resin as claimed in one of claims 1 to 5, characterized in that the acid is propanoic acid.

8. The crosslinked resin as claimed in one of claims 1 to 5, characterized in that the acid is trifluoroacetic acid.

9. The crosslinked resin as claimed in one of claims 1 to 8, characterized in that it additionally comprises at least one photoinitiating agent.

10. A process for the manufacture of a ceramic or of a glass, comprising:
- the preparation of a solution of simple metal alkoxides, complex metal alkoxides or silicon oxides in acetylacetone;
- the production of a resin by reaction under hot conditions of an acid and of hexamethylenetetramine with said solution;
- the deposition of the resin on a substrate;
- the exposure of the resin to ultraviolet radiation;
- the calcination of the radiation-exposed resin, in order to obtain the ceramic or the glass.

11. The process for the manufacture of a ceramic or of a glass as claimed in claim 10, characterized in that the solution of simple metal alkoxides, complex metal alkoxides or silicon alkoxides is prepared in the presence of a heavy alcohol of 2-ethylhexanol type.

12. The process for the manufacture of ceramic or of glass as claimed in either of claims 10 and 11, characterized in that the simple metal alkoxides are zirconium alkoxide or titanium alkoxide.

13. The process for the manufacture of ceramic or of glass as claimed in either of claims 10 and 11, characterized in that it comprises a stage of preparation of complex metal alkoxides from lead carboxylate, zirconium alkoxide and titanium alkoxide.

14. The process for the manufacture of ceramic or glass patterns at the surface of a substrate as claimed in one of claims 10 to 13, characterized in that:

- exposure to radiation is carried out through a mask, so as to define radiation-exposed patterns and non-radiation-exposed patterns;
- it comprises the dissolution of the non-radiation-exposed patterns in a solvent.

15. The process for the manufacture of ceramic or glass patterns as claimed in claim 14, characterized in that the solvent is of dilute acetic acid and/or 2-ethylhexanol type.

16. The process for the manufacture of a ceramic or of a glass as claimed in one of claims 10 to 15, characterized in that the substrate is glass.

17. The process for the manufacture of a ceramic or of a glass as claimed in one of claims 10 to 15, characterized in that the substrate is silicon.

18. A capacitor, characterized in that it is obtained from the process for the manufacture of a ceramic or of a glass as claimed in one of claims 10 to 15.

19. A piezoelectric transducer, characterized in that it is obtained from the process for the manufacture of a ceramic or of a glass as claimed in one of claims 10 to 15.

20. A ferroelectric memory, characterized in that it is obtained from the process for the manufacture of a ceramic or of a glass as claimed in one of claims 10 to 15.